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STAFF REVIEW,
PROPOSED
LOYALSOCK TOWNSHIP
(BULL RUN AND MILLERS RUN)
LOCAL FLOOD PROTECTION PROJECT

SUSQUEHANNA RIVER BASIN COMMISSION

OCTOBER 14, 1976

STAFF REVIEW

PROPOSED

LOYALSOCK TOWNSHIP

(BULL RUN AND MILLERS RUN)

LOCAL FLOOD PROTECTION PROJECT

ROBERT J. BIELO
EXECUTIVE DIRECTOR

SUSQUEHANNA RIVER BASIN COMMISSION

5012 LENKER STREET

MECHANICSBURG, PENNSYLVANIA 17055

PUBLICATION NO. 46

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I. INTRODUCTION

Statement of the Problem

The areas known as Kenmar and Faxon in Loyalsock Township, Lycoming County (Figure 1), have over the past years been subject to periodic flooding from the West Branch Susquehanna River. The Kenmar area includes a highly developed commercial zone locally referred to as the Golden Strip that is located along the West Branch Susquehanna River bounded on the east by Bull Run and on the west by Millers Run. Rt. 220 passes through the area in an east/west direction.

High river stages force water back up both Bull Run and Millers Run through drainage structures to inundate the low-lying area of Kenmar along U.S. Rt. 220. This area is extensively developed for commercial establishments and received an estimated \$8,000,000 in damages in the June 1972 flood. Locally heavy rainstorms over the Bull Run and Millers Run watersheds reportedly have not presented a serious flood problem in the Kenmar area. Runoff from these watersheds occurs well in advance of any substantial rise in the West Branch.

Previous Studies and Existing Projects

Previous studies into the feasibility of providing flood protection for the Bull Run area of Loyalsock Township were made by the Corps of Engineers in 1950 and again in 1967. A favorable Reconnaissance Report under authority of Section 205 of the June 30, 1948 Flood Control Act, as amended, was prepared in 1950 and resulted in a detailed project report. This report, completed

in 1952, found that the project was not economically feasible, and therefore, not recommended. During the comprehensive Susquehanna River Basin Study, completed in June 1970, this area was again considered but a project was not economically justified. In addition, a flood plain information report for the West Branch Susquehanna River in the vicinity of Williamsport that included the Bull Run area was prepared in February 1971.

Several existing projects have a direct affect on West Branch flooding. The four existing flood control reservoirs (Alvin R. Bush Dam, Curwensville Lake, Foster Joseph Sayers Dam and George B. Stevenson Dam) reduced the June 1972 flood peak by 4.1 feet at the Williamsport gage. The Williamsport local flood protection project is located immediately upstream from the Kenmar area. The proposed project would provide a continuation of flood protection along this portion of the West Branch Susquehanna.

Reconsidering a project for the protection of this area was prompted by two factors. One was the serious flooding which occurred during the June 1972 flood, the other was the finalizing of plans for the construction of Sections A15 and B16 of L.R. 1073, the Williamsport Beltway. Local interests felt that the possibility of incorporating the highway embankment into a plan of protection should be considered, especially in light of the increased development which has recently taken place.

II. DESCRIPTION OF PROPOSED PROJECT

Alternatives Evaluated by the COE

Many structural and nonstructural alternative measures to the proposed project were evaluated by the Corps of Engineers (COE). The structural measures included (1) upstream reservoirs, (2) channel improvements, (3) levee and wall, and (4) utilization of highway embankment as a levee. The nonstructural measures shown in the COE report are (1) flood forecasting and warning system, (2) flood plain management, (3) flood proofing, (4) flood insurance, and (5) evacuation of the flood plain.

Project Description

The COE reports that the only feasible plan of protection from economic and environmental standpoints was determined to be the utilization of the proposed highway embankment as a levee (Figure 2).

Tie-back levees and a pumping facility at Bull Run would also be required to protect this commercially-developed section of Loyalsock Township from backwater from the West Branch and from interior drainage on the two small tributaries, Bull Run and Millers Run. The COE advises that nonstructural measures could be utilized in those areas not included in the protected area to protect the existing structures and discourage additional development in the flood plain. The plan of improvement provides for protection against a recurrence of the June 1972 (Agnes) flood, which is



FIGURE 2

the area's greatest flood of record. The main features of the plan are as follows:

- 1) Alteration of 4,100 lineal feet of the proposed highway embankment design by providing an impervious core which will serve as a levee to provide protection from flood stages on the West Branch.
- 2) A closure structure located at the Bull Run culvert to prevent backwater flooding and a pumping station to handle coincidental interior drainage on Bull Run.
- 3) An upstream (west-end) tie-back levee to protect against backwater flooding and coincidental floods on Millers Run.
- 4) A downstream (east-end) tie-back levee to extend from the highway embankment to high ground.
- 5) COE advises existing railroad spur line to be abandoned and closure structure shown on plan (Figure 2) not required. Closure structures for interior drainage culverts.
- 6) An emergency sandbag closure (west-end) for Rt. 220 and 200 feet north, with a design elevation of 530.6 feet msl.

The initial project costs of the recommended plan, as prepared by the COE, are shown in Table 1. The annual costs of the recommended project, also prepared by the COE, are shown in Table 2.

TABLE 1

LOYALSOCK TOWNSHIP FLOOD CONTROL STUDY
SUMMARY OF FIRST COSTS

LEVEE ITEMS (IMPERVIOUS CORE & TIE-BACKS)	\$1,129,000
PUMPING STATION AND DISCHARGE LINES	960,000
MODIFICATIONS TO BULL RUN CULVERT (CONTROL MANHOLE & FLAP GATES)	328,000
MODIFICATION TO 36" DRAINAGE PIPE	36,000
REAL ESTATE	<u>176,000</u>
TOTAL	\$2,629,000

TABLE 2

LOYALSOCK TOWNSHIP FLOOD CONTROL STUDY
ANNUAL COSTS

ANNUAL COST	\$ 161,000
O & M	<u>6,000</u>
TOTAL	\$ 167,000
ANNUAL BENEFITS	\$ 203,000
BENEFIT/COST RATIO	1.22

The steps necessary to implement the proposed plan of improvement for flood control at Loyalsock Township are as follows:

- 1) Review of the project by the Commission and adoption into the Susquehanna River Basin Comprehensive Plan;
- 2) Review of the report by the Corps of Engineers North Atlantic Division and the Office of the Chief of Engineers;
- 3) Approval by the Chief of Engineers constitutes project authorization; and
- 4) Upon such authorization, funds will be provided by the Chief of Engineers for detailed design of the project.

Detailed plans and specifications are prepared. At that time, a formal contract as required by Section 221 of the Flood Control Act of 1970 will have to be consummated with the Township. The Township must provide the necessary local cooperation.

Upon completion of the detailed construction plans and specifications, and receipt of construction funds, construction contracts will be advertised for bids and awarded and the project built. In order to utilize the highway embankment in the flood control project, two separate construction contracts will be necessary. Pennsylvania's Department of Transportation has agreed to include those items of the flood control project which would have to be constructed with the highway into their construction contract, providing the Corps can furnish the necessary funds. The remaining items of the flood control project not to be incorporated into the highway, such as the pumping station and the tie-back levees, would be completed by the Corps in a separate contract.

The sharing of costs between Federal and non-Federal inter-

ests for the flood control project is based on the standard requirements for flood control projects. Non-Federal interests are required to furnish all lands, easements, and rights-of-way, to accomplish necessary relocations, and to operate and to maintain the project. They are also responsible for all costs for construction, including study costs, in excess of the Federal cost limitation of \$2,000,000. Table 3 shows the apportionment of the first cost and annual operation, maintenance, and replacement cost between Federal and non-Federal interests, in accordance with the policies outlined above.

TABLE 3

LOYALSOCK TOWNSHIP FLOOD CONTROL STUDY
COST APPORTIONMENT

<u>First Costs</u>	<u>Federal</u>	<u>Non-Federal</u>
Study Costs	\$ 127,000	--
Construction	1,873,000	\$580,000
Real Estate	<u>--</u>	<u>176,000</u>
Totals	\$2,000,000	\$756,000
Annual Cost	--	\$ 6,000

The Board of Supervisors of Loyalsock Township reviewed the project and found it acceptable and stated their willingness to provide the required items of local cooperation.

The Commonwealth of Pennsylvania normally provides up to

50 percent of the local costs and a statement was put on the hearing record by a Pennsylvania DER representative that..."the department will financially participate (in) 50% of the new figure of local costs which is \$756,000".

III. DISCUSSION

Comments from Public Hearing

The COE and SRBC jointly held a public hearing on August 30, 1976 at the Loyalsock Senior High School, on the proposed Loyalsock Township Local Flood Protection Project.

Of the 78 people who registered their attendance at the hearing, nine presented brief statements regarding the project. All statements were favorable to the project, however, concerns were expressed by three property owners: the Faxon Company, Restaurant Management, Inc., and Schon's Tasty Freeze.

The Faxon Company and Schon's Tasty Freeze supported a levee along Millers Run noting that their properties are outside the protection of the proposed project. They also testified that the project would increase future flooding damages to their property. Restaurant Management, Inc. stated that the west-end tie-back levee as shown on the COE project would go through the middle of their restaurant that is scheduled to be under construction by mid-September.

In response to correspondence on these points from SRBC dated August 31, 1976, the COE advised (Appendix A) that

during their study, two alternatives were investigated which included the Faxon Company property and the area immediately along Millers Run upstream to a suitable tie-back elevation. Reportedly, the cost of extending protection for each of these alternatives was found to exceed the additional benefits the extended protection would provide, thereby showing a lack of economic justification by a great margin. The COE also noted that the buildings in this area are high and would sustain only basement flooding during a flood equal to Agnes.

A summary of the benefits and costs of the recommended plan, and two alternative plans (Figure 3) which include the Faxon Company were also calculated by the COE and are presented in Table 4.

The COE correspondence (Appendix A) to SPBC noted that just prior to construction some slight shift in the proposed west-end tie-back could be made to permit better utilization of the affected property. They also noted that the Township Board of Supervisors were informed that any modification of the west-end tie-back would probably add to the local costs.

Written Comments - Faxon Company

The Faxon Company, 442 William Street, Williamsport, Pennsylvania, submitted written comments summarized as follows:

- 1) Inadequate consideration being given to land costs and economic impact to the Faxon Company by the planned positioning of the western tie-back levee.



ALTERNATE PLANS II AND III FOR WEST TIE-BACK LEVEE

FIGURE 3

TABLE 4

LOYALSOCK TOWNSHIP FLOOD CONTROL STUDY
BENEFITS AND COSTS SUMMARY FOR THE
RECOMMENDED PLAN AND ALTERNATIVES

Recommended Plan

Cost of West Tie-Back Levee	\$ 225,000
Cost of Entire Project	2,629,000
Project Benefits (Ave. Annual)	203,400
Project B/C	1.22

Plan II

Cost of West Tie-Back Levee	\$1,400,000
Cost of Entire Project	3,805,000
Project Benefits	206,000
Benefits for Additional Protection	2,600
Project B/C	0.85
B/C for Additional Protection	0.03

Plan III

Cost of West Tie-Back Levee	\$ 800,000
Cost of Entire Project	3,204,000
Project Benefits	205,500
Benefits for Additional Protection	2,100
Project B/C	1.01
B/C for Additional Protection	0.04

- 2) Positioning of levee virtually eliminates any plans to replace lost storage space.
- 3) Office and store operations will be affected by the levee.
- 4) Project, as planned, will result in more severe flooding of Faxon Company property.
- 5) A Faxon Company engineering study indicated that a tie-back levee extending along Millers Run to an appropriate elevation would be economically feasible.

A discussion with the COE project manager revealed that COE personnel had met with Township Supervisors and also with Faxon officials on September 21, 1976 to discuss the several comments submitted by the Faxon Company.

The COE responses to the Company's five items are as follows:

- 1) The COE believes that the western tie-back levee can be placed in such a manner as to require a minimum amount of land from the Faxon Company (a strip some 15 feet wide).
- 2 & 3) The west-end levee tie-back can be designed and located so that Faxon can add storage space as planned, and store and office operations will not be affected.
- 4) The project may increase the estimated 150-yr. (Agnes)

flood level by less than one foot (if at all) in the vicinity of the Faxon Company property.

- 5) The Faxon Company engineering study relative to the location and costs of a tie-back levee extending along Millers Run did not include a number of pertinent factors that affect project costs. For example, lack of an impervious core, closure structure, etc. Also, PennDOT District 3-0 representative noted that a levee extending along Millers Run as shown by Faxon Company would greatly increase the highway project costs. Present design plans call for a proposed exit ramp from the new highway onto East Third Street which will tie-in at the Faxon Lumber Company. An alternative levee alignment along Millers Run and tie-back above East Third Street could impose additional costs on highway construction by requiring changes in connecting road and ramp locations and/or grade (elevation) tie-ins with existing roads.

SRBC Staff Concerns

SRBC staff raised questions regarding the seepage analysis and the frequency of internal flooding along Bull Run.

The COE responded by noting that the seepage analysis indicated that underseepage on the order of 0.033 cfs might be expected. This amount was considered negligible compared to the 150 cfs capacity of the proposed pumping station.

In regard to interior flooding at the east-end ponding area along Bull Run the COE advised that..."Minor, nuisance flooding can be expected to occur from ponded interior drainage on a 30-year recurrence interval. However, a maximum of only 1.5 feet of flooding from ponded interior drainage would ever be expected in the structures adjacent to Bull Run. A one-foot depth of interior flooding in these adjacent buildings would have a recurrence interval in excess of 100-years. In view of this, it was determined the frequency of flooding due to interior drainage did not warrant additional pumping capacity." It might be noted that no questions or concerns were expressed at the public hearing regarding this potential for some interior flooding of the structures adjacent to Bull Run.

Pennsylvania Department of Environmental Resources

The Pennsylvania DER recommended approval of the proposed project in their comments to the COE dated August 23, 1976 (Appendix B). Pennsylvania DER indicated that compliance with Pennsylvania laws and regulations concerning erosion control, air pollution and noise problems was required.

As noted earlier, DER intends to provide 50% of the local share project cost estimated to be \$756,000.

IV. FINDINGS

The Kenmar area along Route 220 is clearly identified

as having a high frequency of flooding. Due to extensive commercial development along the low-lying Golden Strip, flooding usually produces high damages.

The Corps of Engineers considered a number of structural and nonstructural flood protection alternatives in the development of the proposed project. There is limited potential for upstream storage on the West Branch of the river. Further, should an upstream storage facility be justified, construction is probably 20-30 years away. (The average project period is 17 years.) Upstream storage on Bull Run and/or Millers Run would not significantly reduce the flood hazard for the area.

Use of applicable nonstructural measures is limited by the extensive development that has taken place in recent years. Nonstructural measures identified by the Corps which could contribute to the reduction of flood damages are temporary evacuation of the area, and timely flood forecasting and warning. Flood insurance would minimize the economic impact for owners of flooded properties. Flood plain management and flood proofing would have negligible flood damage reduction benefits because of the existing high density of development and the types of structures.

The COE concluded that a levee incorporated with the planned Rt. 220 Bypass highway construction would provide the best possible flood protection at an early date. Alternative locations of the tie-back levees were evaluated. Since selected plan of the

project has the lowest construction cost, it has the most favorable benefit/cost ratio. Some local dissatisfaction, notably the Faxon Company, still exists with the selected project design.

Pertinent guidelines and criteria in the Commission Comprehensive Plan address the design level of flood protection and impact of such a project on upstream and downstream areas. The project, as proposed, would protect the area from a 100-year flood on the West Branch. It's anticipated that the project may increase the stage of the 100-year discharge of the West Branch by less than one foot (if at all) in the area of the Faxon Company and the river adjacent to the project. The Corps has indicated that the project would reduce the current \$9.0 million benefits assigned to the potential Keating Reservoir by approximately \$35,000. It is submitted that these upstream and downstream impacts would be minimal. The level of proposed protection is consistent with that recommended within the Commission's Comprehensive Plan.

V. RECOMMENDATION

In consideration of comments on the project received by the Commission and the project report by the Corps of Engineers, it is recommended that the Commission adopt the proposed project, as described in the Corps' project report, into its Comprehensive Plan for Management and Development of the Water Resources of the Susquehanna River Basin. (See Appendix C)



DEPARTMENT OF THE ARMY
BALTIMORE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 1715
BALTIMORE, MARYLAND 21203

NABPL-P

29 SEP 1976

Mr. Robert J. Bielo
Executive Director
Susquehanna River Basin
Commission
5012 Lenker Street
Mechanicsburg, Pennsylvania 17055

Dear Mr. Bielo:

Reference is made to your letter of 31 August 1976 and the letter of 8 September 1976 from Mr. Marshall Goulding of your staff concerning the Loyalsock Township Flood Control Study. In your letter you request further information in regard to several questions which were brought out at our combined public meeting on 30 August 1976 and by your staff's review of our draft detailed project report (DPR). I would like to address these questions in the same order as they are contained in your letter. Mr. Goulding's letter dealt with the third area of concern included in your letter. I have also inclosed a copy of your letter for your ready reference.

The first question was relative to the possibility of extending the west tie-back levee to include the Faxon Lumber Company. During the course of our study, two tie-back alternatives were investigated that would include the Faxon Company in the protected area, one of which is included in the draft DPR, which your staff is reviewing. The incremental cost of extending the protection for each of these alternatives was found to exceed the additional benefits the extended protection would provide, thereby clearly showing a lack of economic justification by a great margin. The buildings in this area are high and would only sustain basement flooding during a flood equal to the design flood which accounts for the small amount of additional benefits to the project. The location of the two alternative plans, which were investigated, are shown on the inclosed maps and economic data for these plans and the recommended plan are as follows:



NABPL-P
Mr. Robert J. Bielo

29 SEP 1976

Recommended Plan

Cost of West Tie-out Levee	\$ 225,000
Cost of Entire Project	\$2,629,000
Project Benefits (ave. annual)	\$ 203,400
Project B/C	1.22

Plan II

Cost of West Tie-out Levee	\$1,400,000
Cost of Entire Project	\$3,805,000
Project Benefits	\$ 206,000
Benefits for Additional Protection	\$ 2,600
Project B/C	0.85
B/C for Additional Protection	0.03

Plan III

Cost of West Tie-out Levee	\$ 600,000
Cost of Entire Project	\$3,204,000
Project Benefits	\$ 205,500
Benefits for Additional Protection	\$ 2,100
Project B/C	1.01
B/C for Additional Protection	0.04

The second question concerned the possibility of shifting the exact location of the proposed west tie-back levee to allow the planned development of a valuable parcel of land for the construction of a restaurant. As you noted in your letter, Mr. Harold Nelson of my staff stated at the public meeting that it might be possible to shift the exact location of the tie-out. We are currently finalizing our report with the west tie-back located as shown in the draft report in order to expedite review of the DPR and project authorization. However, as was stated at the public meeting and as we have discussed with the Loyalsock Township Board of Supervisors, a slight modification in the location of the tie-out location could be made prior to construction to permit better utilization of the valuable commercial property. In regard to the west tie-out situation, the Loyalsock

29 SEP 1976

NABPL-P

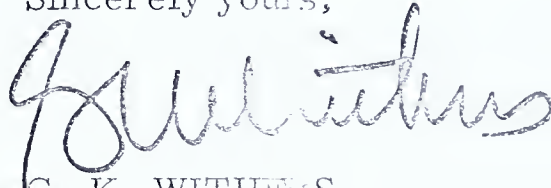
Mr. Robert J. Bielo

Township Board of Supervisors were informed that any modification in the tie-out location would probably be more costly than that presented in the DPR, and since the project costs already exceed the \$2,000,000 Federal contribution, all project costs increases would be the responsibility of local interests.

The third area of concern related to engineering aspects of the project. Members of your staff have questioned a possible seepage problem with the impervious core during long duration floods. A seepage analysis was performed that showed underseepage on the order of only 0.033 cfs might be expected, which would be negligible compared to the 150 cfs capacity of the proposed pumping station. The other engineering concern was in regard to the frequency of flooding in the ponding area along Bull Run. A statement in the Draft Detailed Project Report indicated a 30 year frequency of flooding, on the average, to four properties adjacent to the ponding area. This statement was somewhat misleading and has been omitted from the final DPR as it is not a critical issue in project design protection. It is true minor, nuisance flooding can be expected to occur from ponded interior drainage on a 30 year recurrence interval. However, a maximum of only 1.5 feet of flooding from ponded interior drainage would ever be expected in the structures adjacent to Bull Run. A one foot depth of interior drainage flooding in the buildings would have a recurrence interval in excess of 100 years. In view of this, it was determined the frequency of flooding due to interior drainage did not warrant additional pumping capacity. Also, the degree of protection from Susquehanna River flows and interior drainage are compatible.

I trust this information will be sufficient for the completion of your project review. As requested, you will receive a transcript of the public meeting when it is available in the near future. If you have any additional questions or need any more information, please feel free to contact me or my staff.

Sincerely yours,



G. K. WITHERS
Colonel, Corps of Engineers
District Engineer

2 Incl
As stated



DEPARTMENT OF ENVIRONMENTAL RESOURCES

P. O. BOX 1467

HARRISBURG, PENNSYLVANIA 17120

Secretary

August 23, 1976

SUBJECT: Review and Evaluation of PSCH No.: 76-07-3-004
DEIS - Bull Run Flood Protection Project
Loyalsock Township, Lycoming County

Greta M. Line, Supervisor
Pennsylvania State Clearinghouse

RM:

MAURICE K. GODDARD
Secretary of Environmental Resources

This project has been evaluated on the basis of the actions proposed in the applicant's submission. Any changes made by the applicant subsequent to and not in keeping with our recommendations will require a new submission through the Pennsylvania State Clearinghouse. The Department retains an interest in this project. Inquiries concerning the following comments should be directed to Keith R. Gentzler, Chief, Division of Coordination, Office of Planning and Research, Department of Environmental Resources, P.O. Box 2357, Harrisburg, Pennsylvania, 17120. Phone: (717) 783-1334.

The Department of Environmental Resources recommends approval of this project with the understanding that the following conditions will be met:

(1) It appears that a major relocation of sanitary sewer interception will be necessary. Related overflow piping to the river must also be considered. Approval for the sewer relocation will be necessary. A sewerage permit must be obtained.

(2) All solid wastes handling during land clearance and construction must comply with Act 241. An Erosion Control Plan may be required.

(3) Concerning the "Draft Detailed Project Report", we have a comment which is related to our current project which involves the replacement of the highway culvert carrying Bull Run under the existing Route 220. The hydrology for this project was originally developed by PennDOT indicating a 100-year frequency flood flow of about 900 cfs. Subsequently, our design consultant reviewed the hydrology and designed the project for 1,200 cfs. The "Draft Detailed Project Report" shows a 100-year flood flow of about 1,600 cfs. Informal coordination with the Susquehanna

Continued

(3) Continued

River Basin Commission indicates some questions or reservations about the analysis and justification of the pumping station for Bull Run. It appears that some flooding could result from interior drainage due to ponding at the pumping station. The maximum ponding level is estimated to have a 30-year frequency and would yield a residual average annual damage of \$4,000.


The reason for choosing a pumping station of the specified capacity is not entirely clear, except to assume that the decision is based on economic considerations. Although we support this project and would not recommend any delay in its implementation, it would appear reasonable to request further details on the pumping station analysis.

(4) The subject project appears to offer no adverse environmental impacts upon the local geologic or ground water environment. As with every successful levee project, consideration should be given to the impact of increased volume of runoff and higher flood crest heights down stream.

(5) The Department strongly encourages the affected municipalities in the project area to adopt floodplain zoning ordinances and subdivision regulations. These non-structural techniques would help the municipalities to protect flood-prone areas. Also, storm water management techniques should be investigated as a possible alternative for retarding runoff in developed or developing areas outside the floodplain.

(6) See attachment for additional information and requirements.

Attachment

James R. Orr 
Engineering Assistant
PA Bureau of Air Quality & Noise Control
Williamsport Regional Office

Environmental air pollution and noise problems that could arise from the subject construction are: Unacceptable open burning procedures, excessive fugitive dust and distress to residents due to excessive construction noise.

Open burning problems could result from the displacement of trees and shrubs both from the construction sites and any "borrow areas." Section 129.14 of the Rules and Regulations of the Department of Environmental Resources states that:

Trees, shrubs, and other native vegetation which must be cleared for construction (this does not include dirt laden roots, or demolition waste) may be burned provided that the Department does not receive a complaint or does not determine that air pollution is being caused.

If a complaint is received or air pollution is being caused then the burning must cease or comply with the following:

- (b) No person shall cause, suffer, or permit the open burning of any material in any area outside of air basins in such a manner that:
 - (1) The emissions are visible, at any time, at the point such emissions pass outside the person's property;
 - (2) Malodorous air contaminants from the open burning are detectable outside the person's property;
 - (3) The emissions interfere with the reasonable enjoyment of life or property;
 - (4) The emissions cause damage to vegetation or property; or
 - (5) The emissions are or may be deleterious to human or animal health.

No violations of Departmental Regulations can be permitted. If open burning operations cannot be conducted in compliance with Departmental Regulations all marketable timber should be utilized and the remaining material chipped and either sold, used as mulch or landfilled.

Fugitive dust problems could result from stockpiling operations and the use of haul pads at the construction areas. Section 123.2(1) of the Department's Regulations stipulates that no person shall cause, suffer, or permit fugitive particulate matter to be emitted . . . if such emissions are:

- (1) Either visible, at any time, at the point such emissions pass outside the person's property, irrespective of the concentration of particulate matter in such emissions.

In addition, Section 123.1 of the Regulations state that for land clearing, road use and construction of buildings or structures:

- (b) Any person responsible for any source . . . shall take all reasonable actions to prevent particulate matter from becoming airborne. Such actions shall include, but not be limited to, the following:
 - (1) Use, where possible, of water or chemicals for control of dust in the demolition of buildings or structures, construction operations, the grading of roads or the clearing of land.
 - (2) Application of asphalt, oil, water or suitable chemicals on dirt roads, material stockpiles, and other surfaces which can give rise to airborne dusts.
 - (4) The paving and maintenance of roadways.
 - (5) The prompt removal of earth or other materials from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water, or other means.

There will be a significant increase in noise level during the construction phase of the project due to the use of heavy construction equipment. Although a large percentage of this noise is unavoidable, it should be kept to a minimum by:

- (1) Insuring that all equipment is properly muffled, and that "low noise" equipment is utilized as much as possible.
- (2) Construction hours should be restricted to a normal workday thereby distressing the local residents as little as possible.

CONCLUSION - In order to insure that the air pollution and noise problems are minimized, the contracts let must specify that the contractor provide the specific remedies outlined in the body of this comment. The contractors should be advised that if Department Rules and Regulations are violated, enforcement action will be taken.

RESOLUTION NO. 76-6

A RESOLUTION by the Susquehanna River Basin Commission to include in its Comprehensive Plan the local flood protection project for Loyalsock Township, Pennsylvania proposed by the U.S. Army Corps of Engineers.

WHEREAS, the Susquehanna River Basin Compact, Public Law 91-575, provides that the exercise of any powers conferred by law on any agency of the United States with regard to water resources in the Susquehanna River basin shall not substantially conflict with the Commission's Comprehensive Plan; and

WHEREAS, Section 12.1 of the Compact provides that no Federal agency may make an expenditure or commitment for the construction, acquisition, or operation of any project or facility affecting the water resources of the basin unless it first has been included by the Commission in the Comprehensive Plan; and

WHEREAS, a local flood protection project to protect the Loyalsock Township (Bull Run and Millers Run areas), Pennsylvania, from floods on the West Branch of the Susquehanna River was identified in the Coordinating Committee Study of 1970; and

WHEREAS, the U.S. Army Corps of Engineers has restudied the project plan after the June 1972 flood and submitted reconnaissance and draft detailed project reports proposing the project; and

WHEREAS, the Commission has reviewed the proposed project, and on August 30, 1976 conducted a public hearing thereon to solicit the views of interested parties;

NOW THEREFORE BE IT RESOLVED THAT:

- (1) The project, as proposed by the Corps, be included in Recommendation No. 2 under the Flood Plain Management and Protection Section of the Early Action Program of the Comprehensive Plan for funding and construction as soon as possible.
- (2) The Executive Director is directed to transmit this Resolution with a copy of the staff review of the project, dated October 14, 1976, to appropriate Corps officials, and members of the Congress and to cognizant State and local officials.

October 14, 1976

Date Adopted


Chairman



